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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,359

07/23/2007

Mats Backman

KADZ 200050

4651

27885

7590

06/27/2008

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EXAMINER

LU, C CAIXIA

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,359	Applicant(s) BACKMAN ET AL.	
	Examiner Caixia Lu	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. Claims 1-8 and 11-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Backman et al. (US 6,441,096).

Backman disclosed a multimodal ethylene polymer composition having a density of 0.930-0.965, a weight ratio of LMW/HMW of (43-51):(57-49), MFR₅ of 0.1-1.0 g/10 min, a dynamic viscosity at a shear stress of 2.7kPa of 260-450 kPa's, a shear thinning index (SHI)of 50-150, and a pressure pipe thereof (col. 2, lines 38-62; cols. 15-16, Examples 2 and 3; and col. 18, claims 1-10). Backman's ethylene polymer composition and pipe encompass the ethylene polymer composition and pipe of the instant claims.

It is noted that Backman does not expressly disclose the molecular weight ranges of the low and high molecular weight fractions of the bimodal ethylene polymer composition. However, in Table 1 of col. 16, Backman does expressly disclose the MFR₂ of the low molecular fraction in the range of 280 to 1060 and the MFR₅ of the final bimodal ethylene polymer composition in the range of 0.19 to 0.4. Based on the MFR₂ and the MFR₅ listed in Table 1, one would have expected the corresponding molecular weights of the low and high molecular weight fractions of the bimodal ethylene polymer composition inherently in the range of instant claim 23. Once a product appearing to be substantially identical is found and a 35 USC 102/103 rejection made, the burden of proof is shifted to the applicant to show an unobvious difference. In re Fitzgerald, 205 USPQ 594. In re Fessmann, 180 USPQ 324.

Therefore, it would have been obvious to a skilled artisan at the time the invention was made to employ Backman's teaching to provide ethylene polymer compositions and pipes thereof because such is within the generic disclosure of the reference and all of the embodiments of the reference are expected to work and in the absence of any showing of criticality and unexpected results.

Response to Arguments

2. Applicant's arguments filed April 11, 2008 have been fully considered but they are not persuasive.

As show in the table disclosed in applicants' Remark, Backman's bimodal ethylene polymer composition encompasses the bimodal ethylene polymer composition of the instant claims, especially at the high density and low melting flow rate. One would be motivated to prepare the bimodal ethylene polymer compositions with high densities and low melt flow rate to provide pressure pipes with a higher design stress rating according to Backman (col. 7, lines 5-11).

Applicants also argue that Backman discloses that the preferred lower limit for the molecular weight of the high molecular weight fraction is 3,500 or 4,000; in contrast, the lower limit for the molecular weight of the high molecular weight fraction of claim 23 is 300,000. It appears that applicants mix up the concepts of the weight average molecular weight and the lowest molecular weight of the molecular weight range. First of all, Backman discloses that the preferred lower limit for the molecular weight of the high molecular weight fraction is at least 3,500 or 4,000, i.e., the lower limit can any number higher than 3,500 or 4,000 such as 10,000 or 100,000. Apparently, Backman's

lower limit for the molecular weight of the high molecular weight fraction does not exclude the molecular weight limitation of the high molecular weight fraction of claim 23. Secondly, the molecular weight limitation of claim 23 is the weight average molecular weight which covers a wide range of molecular weight, and there is nothing on the record of the instant application which shows the lower end of the molecular weight range excluding 3,500 or 4,000.

In view of the foregoing, the rejection of the record are still deemed to be proper and thus maintained.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu whose telephone number is (571) 272-1106. The examiner can normally be reached on 9:00 a.m. to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caixia Lu/
Caixia Lu
Primary Examiner
Art Unit 1796